



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,928	03/30/2004	Tomomi Tateishi	1330-0139PUS1	2905

2292 7590 01/30/2007
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SUCH, MATTHEW W

ART UNIT	PAPER NUMBER
----------	--------------

2891

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/30/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/811,928	Applicant(s) TATEISHI, TOMOMI	
	Examiner Matthew W. Such	Art Unit 2891	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 7 and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase “to a temperature 40 degrees Celsius higher than the flow starting temperature” in claims 1, 7 and 13 are not supported by the specification. The specification refers to “the organic layer or high-molecular weight components therein have glass transition temperatures or flow-starting temperatures of higher than 40 °C” (Page 22, Lines 18-19). For the purposes of examination, the Examiner interprets the phrase in light of the cited line in the specification (Page 22, Lines 18-19). Applicant is invited to identify the specific page and line number that discloses the claimed subject matter.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2891

4. Claims 1, 3, 7, 9, 13, 15, 19 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "assuming that" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. In so far as definite, claims 1-3, 5-9 and 11-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Nirmal ('560) in view of Zhang (Appl. Phys. Lett.).

7. Regarding claims 1 and 7, Nirmal ('560) teaches a method for producing an organic electroluminescent device (Paragraph 0014) using a transfer material having at least one organic layer (Elements 116, 118, 114, 212, 214, 216) formed on a support or plate (Elements 110, 210) each with a surface which supports the transferred organic layer.

The support or plate can have a pattern (Paragraph 0067).

The transfer material is superposed on a first substrate (Elements 220) having a conductor electrode formed thereon (Element 222; Paragraph 0064).

Art Unit: 2891

The organic layer faces the conductor electrode on the first substrate (Fig. 2a and 2b).

Heat and pressure are applied forming a laminate (Paragraphs 0006, 0008, 0016-0026, 0067 and 0076-0078).

The support is peeled from the laminate so that the organic layer (Elements 116, 118, 114, 212, 214, 216, 234 and 236) is transferred onto the first substrate via the conductor electrode (Paragraph 0067; Fig. 2b).

Regarding the maximum surface roughness limitation, the claim language states that the R_{max} of 0 to 50 is obtained from a ratio of a maximum surface roughness R_{max} (nm) of said first substrate to the thickness (nm) of said organic layer assuming that the thickness of said organic layer is 100. The manner in which the claim is written does not limit that the surface roughness of the first substrate be 0 to 50 every case, but only when the assumption is made that the organic layer is 100 thick. Since the organic layer can be a thickness different than 100 nanometers, then the surface roughness of 0 to 50 does not differentiate the claim from Nirmal (Paragraphs 0027, 0045, 0051, 0072-0080).

The organic layer can contain materials such as PVK or polyimide. Zhang teaches that, for example, PVK has a glass transition temperature greater than 40 degrees Celsius (page 2948, right-hand column).

8. Regarding claims 2 and 8, Nirmal further teaches forming a second substrate as having an electrode as layers of calcium and aluminum on the organic layer on the first substrate (Paragraph 0080).

Art Unit: 2891

9. Regarding claims 3 and 9, the claim language states that the R_{max} of 0 to 50 is obtained from a ratio of a maximum surface roughness R_{max} (nm) of said first substrate to the thickness (nm) of said organic layer assuming that the thickness of said organic layer is 100. The manner in which the claim is written does not limit that the surface roughness of the first substrate be 0 to 50 every case, but only when the assumption is made that the organic layer is 100 thick. Since the organic layer can be a thickness different than 100 nanometers, then the surface roughness of 0 to 50 does not differentiate the claim from Nirmal (Paragraphs 0027, 0045, 0051, 0072-0080).

10. Regarding claims 5-6 and 11-12, Nirmal further teaches a flat layer (Element 112; Paragraphs 0029-0035) is formed with a thermosetting organic compound (Paragraph 0033).

11. Regarding claims 13-24, The entirety of the language is directed towards the process of making a device. It is well settled that “product by process” limitations in claims drawn to structure are directed to the product, per se, no matter how actually made. In re *Hirao*, 190 USPQ 15 at 17 (footnote 3). See also, In re *Brown*, 173 USPQ 685; In re *Luck*, 177 USPQ 523; In re *Fessmann*, 180 USPQ 324; In re *Avery*, 186 USPQ 161; In re *Wethheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); In re *Marosi et al.*, 218 USPQ 289; and particularly In re *Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a “product by process” claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in “product by process” claims or otherwise. The above case law further makes clear that applicant has the burden of showing that the method

Art Unit: 2891

language necessarily produces a structural difference. As such, the language of the claims only requires the device, which does not distinguish the invention from Nirmal, who teaches the structure as claimed.

12. In so far as definite, claims 4 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Nirmal ('560) in view of Zhang (Appl. Phys. Lett.) as applied to claims 1 and 7 above, and in further view of Sekimura ('637)

Nirmal further teaches a first substrate can be made of ITO, indium-tin-oxide (Paragraph 0071). Sekimura teaches that ITO has a linear expansion coefficient of 20 ppm / degrees Celsius or less (Col. 3, Lines 7-15).

Response to Arguments

13. Applicant's arguments filed 7 April 2006 regarding 35 U.S.C. 112, first paragraph rejections of claims 1, 3, 7, 9, 13, 19 and 21 have been fully considered but they are not persuasive. The Examiner reiterates that the phrase "assuming that" does not define the claim it is unclear whether the limitation is part of the invention. For example, the thickness of the organic layer is not required to be 100, but only assumed to be 100. An assumption does not make the organic layer have a particular thickness. See MPEP § 2173.05(d). The Examiner suggests that the Applicant write the claims in a manner which is definite without introducing new matter. For example, the specification appears to support absolute values for the surface roughness, or the feature can be written in the form of a definite equation as supported in the specification. Either example would better define the scope of the claimed invention.

Art Unit: 2891

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew W. Such whose telephone number is (571) 272-8895. The examiner can normally be reached on Monday - Friday 9AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley W. Baumeister can be reached on (571) 272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew W. Such
Examiner
Art Unit 2891

MWS
1/23/07


Chandra Chaudhari
Primary Examiner